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NATIONAL TUBERCULOSIS ASSOCIATION

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EDITORIAL

Our Principal Problem

Another year has whirled around and the seeming accelerating tempo of the seasons is matched only by acceleration of changes in the tuberculosis picture. The propulsive mechanism is largely isoniazid, which, like a jet engine, started its career producing mostly sound and heat but rapidly has been translated into forward motion.

Whirling mechanisms are fascinating spectacles, but such objects tend to be blurred, and it may be difficult to make out patterns which must be visualized clearly if further advances are to be made. Engineers have devised various means of clarifying whirling objects, such as stroboscopic light which can make a revolving object appear to be standing still.

We have no stroboscopic light to throw upon the whirling change in the tuberculosis picture, but we have the next best thing—epidemiologic analysis, from which a clarifying picture seems to be emerging: in the United States our principal problem from here on is that of dealing with the person who reacts to the tuberculin test.

An editorial such as this does not permit detailed analysis of the pertinent epidemiologic observations which have brought me to this conclusion, but it seems to me that evidence is pretty overwhelming that the great majority of new active cases of tuberculosis occur among those who have been reactors to tuberculin for some time and represent a breakdown into active disease of a smoldering infection of virulent tubercle bacilli.

The problem of tuberculosis control resolves itself then primarily into detecting these reactors and keeping them from breaking down into active disease. It is remarkable that a problem which can be stated so simply is anything but simple when it comes to basing a practical program on such a thesis. First, certain provisos have been assumed which, if in error, undermine the thesis itself. One is that the social and economic status of the people will be at least as good in the future as it is now. Another is that individuals already detected and treated will not again relapse into active disease in any significant proportion. A third proviso is that present programs of detection, treatment, and supervision of active cases will not slacken, and preferably will be strengthened, so that new infections will continue to decline.

In addition there are difficulties with regard to the problem itself. Determining whether or not a person is a reactor to tuberculin is not a simple procedure; the most reliable determination is through intradermal injection of PPD. However, there have been difficulties with regard to the potency of the various commercially-produced PPD preparations. Often the injections are not actually given intradermally. If too large a dose is given, non-specific reactors are encountered. Only areas of induration of more than five millimeters should be called positive. In other words, despite tremendous and excellent research done on the tuberculin test and its extensive use in the past, still more definitive research is urgently needed, as well as education as to its proper use and standardization of the tuberculin itself.

Then comes the question as to what to do about the reactor after his separation from the rest of the population. Obviously he should be given a chest X-ray to be sure he doesn't have active disease, but as to what should be done if the X-ray appears entirely normal is a problem to be determined only after careful studies conducted in large scale experiments scrupulously observing the highest scientific standards and including adequate controls. Pending such studies it is probably better in the average case merely to follow the individual with periodic chest X-rays.

The best statistical estimate as to prevalence of tuberculin reactors in the United States is that about one third of our population, roughly 50 million people, are reactors. In other words, about 50 million people harbor virulent human tubercle bacilli which probably will produce active disease at the rate of probably well over 100 new active cases per 100,000 reactors per year.

I think I need say no more since surely this will make clear to all the necessity for maintaining, and, if possible, strengthening, our current control programs of case finding, hospitalization, extra-hospital supervision, rehabilitation, and promotion of higher living standards, and the need for further emphasis on medical and social research and public and professional education.—*James E. Perkins, M.D., Managing Director, NTA.*

bulletin

NATIONAL TUBERCULOSIS ASSOCIATION

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Can We Wipe Out TB?

Whether Eradication of Tuberculosis Remains a Hope Or Becomes a Fact Depends Upon Our Ability to Adapt to The Impressive Changes of Recent Years

by H. Corwin Hinshaw, M.D.

Dr. Hinshaw has been clinical professor of medicine, Stanford University School of Medicine, and head of the San Francisco, Cal., Division of Diseases of the Chest since 1949. Formerly Dr. Hinshaw was associated with the Mayo Clinic, first as a fellow in medicine and then as consulting physician and section head. He was president of the American Trudeau Society for 1948-49. In addition to his medical degree from the University of Pennsylvania, Dr. Hinshaw holds a Ph.D. from the University of California and an honorary D.Sc. from the College of Idaho.

There has been a striking trend in tuberculosis control which deserves careful examination by everyone interested in the health and welfare of America.

The changes of the past 5 or 10 years are among the most impressive in the history of the anti-tuberculosis movement, whose future depends upon our reaction and adaptation to these changes.

First, tuberculosis has changed. The disease we now oppose is unlike that of 10 years ago. I do not refer alone to finding earlier disease, to any altered virulence of invading bacteria (of which there is no evidence) or to change in the human host, although resistance may have been bolstered by higher living standards. I refer to the fact that tuberculosis is now, as never before, a treatable disease—a curable disease, if you please!

Modern treatment can relieve tuberculosis symptoms promptly, bring the disease to arrest, and can usually prevent—or at least minimize—the risk of recurrence. This has not been subjected to the full test of time but is based on a firm foundation in fact.

Greater Responsibility

Now that tuberculosis can be treated successfully it is more than ever a disgrace that every case does not receive these benefits; now, more than ever, it is a social outrage that anyone with tuberculosis should walk the streets. Tuberculosis associations and the medical profession have greater responsibility; all of us face a greater challenge.

In mentioning changes of the past few years I refer specifically to two phenomena: first, the lowered death rate, quite unprecedented in the history of any disease I can recall, and, secondly, diminished bed occupancy in many communities.

Both can be readily explained. The death rate is simply an expression of improved therapy. Many patients who enter hospitals today with what used to be a fatal type infection will return to their jobs, something which would have been impossible in the past.

The empty beds should be a cause for pride. These are an index of rapidity of treatment. It now takes about half as long as formerly to bring tuberculosis to a state of arrest. Therefore, half the beds would be empty but for one fact: many patients who would have died in two or three months now live on in the hospital for a year or more, perhaps to go home after complicated surgery and prolonged treatment. An astounding number of patients leave hospitals contrary to medical advice, only to return with difficult or hopeless complications. Why does this occur? What can we do about it?

The magnitude of this problem has not been faced squarely. If you would walk through the tuberculosis wards of any great hospital and see those destined to die and those hopelessly crippled, you would see those who deserted treatment. In reviewing hundreds of X-rays, as I do every week, it is possible to detect with high accuracy those who failed to follow medical advice.

I will go so far as to say that if all patients accepted recommended treatment, the present low death rate could be greatly reduced, perhaps halved. How can we say that tuberculosis is under control when thousands of misled persons are engaged in this form of self-destruction?

Tuberculosis workers cannot remain aloof from the blood and pus of destructive disease. They should sit in the surgical amphitheater and see at first hand the struggle between life and death on the operating table. They should talk to patients who resist treatment and who have suffered the effects of self-neglect. More than that, they should know the intense gratification of successful treatment. They should be permitted to share with us the joy of a re-united family, the triumph of removing a lung cavity that threatens the individual's future.

Know the Local Situation

Tuberculosis workers should know their local situation. How many people left your sanatorium last year with a positive sputum? What became of them and their associates? Can you control the real public health menaces in your community? If not, is it the fault of your laws? If so, see that they are changed. Is the fault with your public health officials? If so, see that they do their duty or are replaced with informed, energetic officials.

Self-neglect by patients is a manifestation of ignorance. Doctors are notoriously inept in matters of patient education. We must confess to failure in persuading many patients to accept treatment which might save their lives. We need the help of others, better trained or more gifted in the persuasive arts, in salesmanship if you please. The patient in the next bed often has more influence than the doctor, even though

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he may be himself a clinical derelict from self-neglect. It is he who pretends to know the horrors of surgery, who extolls the virtues of a different climate, or encourages his fellow patient to refuse medication.

Tuberculosis associations have frequently sponsored patient welfare programs which have been potent educational and service projects. A major objective of such programs might be to benefit those likely to refuse adequate medical care. Each patient in this group is dissatisfied, ignorant, or harassed by more than his share of woes. The difference between success and failure of treatment may often depend upon resolution of some emotional conflict. Maybe he needs only to talk to someone with enough time to listen to his troubles.

Attack at the Source

I would urge you to attack your local problem at its source: persons with positive sputum. Such persons are those who do not know they have tuberculosis (hence the case-finding program which is often well managed), or those who know but refuse adequate treatment and isolation, an important group usually not well managed.

The problem is mostly one of education. But there are a dangerous few who require detention as persons dangerous to society. Remarkably little is being done to control them in many communities where other communicable diseases are nearly extinct. Personal liberty is a precious heritage, but liberty should be denied to those who knowingly expose others.

Now don't quote me as saying that every person with tuberculosis should be locked up. But a few should be locked up, and if such facilities existed, many cases could be prevented.

Our public health laws and practices with reference to tuberculosis should be re-examined at this time in light of modern treatment. When beds were at a premium, preference was often given to the person who would cooperate. Now that we have no waiting lists in most communities, it is shameful to let any patient in need of treatment leave the hospital, his bed unoccupied.

Formerly many cases of tuberculosis were essentially incurable and it seemed cruel to sentence a person to lifelong segregation in an institution. Fortunately, this situation has changed. Many of these patients can now be rendered well and safe members of society. Often the period of segregation, voluntary or forced, need be only a few months, if they accept treatment.

I am not opposed to all home treatment. Indeed home treatment depends upon the home and the quality of medical treatment available. In general it is wiser to insist upon a few months of hospital care, permitting the patient to return home as soon as the disease has subsided considerably and there is little danger of contagion. In many instances persons in the lower income groups have no suitable facilities for care in the home, even for relatively inactive phases of the disease. Now that hospital beds are ample in most communities there is little need for indigent home care programs. These are at best clinical compromises.

No discussion of tuberculosis control is complete without mention of the very important problem of rehabilitation, which aims at prevention of relapse because of occupational stresses. It is our duty to utilize all possible agencies and funds to render our patients self-supporting in a suitable occupation. Early diagnosis, thorough treatment, and adequate education often permit a patient to return to his former occupation. Only advanced, destructive, and neglected tuberculosis is truly disabling, but unfortunately this remains a common condition.

The tuberculosis movement has made great gains. Clinical doctors and research laboratories could never have done this alone. There has been an organized attack against this enemy of mankind on many fronts simultaneously. Vast sums for research, vast educational projects, the Herculean task of X-raying millions and millions of people—none of these came easily. The result has been one step toward tuberculosis control, a broad step, but only the first.

In all hospitals I know, admissions are as numerous now as five or 10 years ago. Those in need of care continue to enter, many thousands every year. Let me repeat: the need is not diminished.

Finally, let me reiterate the importance of thorough treatment as a most significant aspect of tuberculosis control. The well-treated patient is the end product of any effective control program. Former patients are very important sources of new cases. Most frequently these are persons who left the hospital prior to completion of treatment. They were not convinced of the need for treatment—often they were not well informed as to the consequences of the rash act of desertion. It is little less than scandalous to permit one third of all patients to leave under these conditions. It is indeed scandalous not to control the activities of those few who are real public health menaces.

"Get Tough" Policy

It is my prediction that one of the great phases of tuberculosis control is about to begin, a phase which will be marked by a "get tough" policy toward persons who carelessly distribute tuberculosis to innocent people. If we cannot devise simpler methods, we must deprive them of personal liberty, lock them up perhaps, until they accept treatment which will be beneficial to themselves and their associates.

Perhaps the most important index of tuberculosis control is supplied by tuberculin tests. The prevalence of positive skin tests is important to know, yet few communities have reliable data. Any person with a positive test has contracted the infection and may become ill and transmit the disease.

My advice to the tuberculosis associations may be summarized as follows:

1. Be sure that your community provides the best treatment facilities.

2. Be sure that dangerous persons are persuaded, or, if necessary, restrained to prevent spread of this communicable disease, and are treated until well.

3. Learn the problems of patients in your hospitals and sanatoriums: try to help these unfortunate people with their problems.

4. Find out the prevalence of positive tuberculin tests in your community.

5. Finally, in addition to these things, continue your other noble pursuits: case finding, health education, rehabilitation.

When you run out of something to do, eradication will be a fact.

Protecting Children

by Agnes Fahy

Science Writer, Public Relations,
National Tuberculosis Association

At a National Jewish Hospital Symposium Scientists From Seven Nations Studied How to Protect Today's Children and Future Generations From Tuberculosis

"It's a poor sort of memory that only works backwards."

This bit of Queenly wisdom from "Alice Through the Looking Glass" set the stage for the Symposium on Tuberculosis in Infancy and Childhood sponsored by the National Jewish Hospital at Denver and held at the hospital November 9-12, 1955.

The symposium brought together approximately 150 laboratory and clinical investigators for a penetrating look at one of the grave disease problems of childhood and one with far-reaching implications for the future. Discussion was led by more than 20 participants from six European countries and the United States. The symposium was planned by an NJH committee under the executive chairmanship of Dr. Gardner Middlebrook, director of research at the hospital.

And while scientists of seven nations weighed the intricate factors which must be better understood to keep tuberculosis from striking the child of tomorrow, in another building on the same hospital grounds lay 50 children, victims of our failure to protect them from the disease.

Long-Range Perspective

Calling the attack on the disease in the young "one of the most effective forms of tuberculosis control," Rene J. Dubos of the Rockefeller Institute for Medical Research, New York City, opened the symposium with the quotation from Alice to point up the need for long-range perspective on the problem of tuberculosis in children.

"It has long been recognized," he said, "that the prevalence of clinical tuberculosis for any given generation is determined during the early years of life of that generation."

Dr. Dubos raised the question whether primary infection contracted in childhood should be considered a blessing or a tragedy. There is a school of thought, he brought out, which considers it a "blessing because it endows the infected individual with greater resistance against disease later in life," while others believe it may be a decided disadvantage—"the seed from which clinical tuberculosis may eventually develop and, indeed, often eventually does develop."

Early Infection Not Advantage

Time was when early infection was considered an advantage. But that, according to Dr. Dubos, was when most children lived in an environment of almost constant heavy exposure to tubercle bacilli and some degree of immunity might have been gained through infection overcome early in life. But today, at least in the Western world, children on the whole are not living in an atmosphere of heavy exposure and, furthermore, the standard of living is generally adequate to secure for most individuals a fair degree of natural resistance, he stated.

"Moreover," said Dr. Dubos, "there has accumulated during recent decades much evidence that the immunity resulting from primary infection in childhood is bought at a very costly price and the risks that it entails are not small since, as we know, tuberculous infection that may remain latent during the early years of life not uncommonly

Dr. Floyd M. Feldmann, medical director of the National Tuberculosis Association, Dr. Gardner Middlebrook, National Jewish Hospital, Denver, and Dr. Walsh McDermott, editor of THE AMERICAN REVIEW OF TUBERCULOSIS (left to right) are shown here attending the Denver symposium.

flares up in the form of overt disease at the time of puberty or during early adulthood. Immunity is not essential for survival as it was in the early 19th century."

Immunity would appear to be one of the most tantalizing problems engaging scientists in the tuberculosis field today, judging from the discussion devoted to the subject at the symposium.

Dr. Dubos drew a sharp distinction between allergy to tuberculin and immunity to tuberculosis. Thus, a person who reacts to the tuberculin test has not necessarily established immunity to the disease. One of the great needs, according to Dr. Dubos, is for an agent which will provoke immunity without creating allergy. BCG, the best known vaccine, brings some degree of immunity but it also creates allergy to tuberculin and brings about conversion from tuberculin negative to positive in those vaccinated.

Future Vaccine

A firm conviction was expressed by Dr. Dubos that the time will come when a vaccine will be made from purified extracts of the tubercle baccillus which will provide immunity without causing allergy. Furthermore, he believes, this will lead to the development of tests that measure immunity and to the development of more specific diagnostic techniques than are now available.

The suggestion that an ideal vaccine might be one made from a strain of BCG resistant to isoniazid was made by Dr. Georges Canetti of the Pasteur Institute, Paris.

"This would make possible the simultaneous administration of chemoprophylaxis and vaccination," he said. "During the time required for the development of specific immunity, the contact would be under the cover of the prophylactic drug and probably no virulent infection would occur, yet the establishment of immunity would not be hampered by the administration of isoniazid since the organisms in the vaccine would be resistant to isoniazid and not effected by it."

A warning to clincians on the danger of permitting sputum-positive patients treated with isoniazid to leave the hospital for a home where there are unvaccinated children was issued by Dr. Noel Rist, also of the Pasteur Institute. Dr. Rist emphasized the "extraordinary diversity" of isoniazid-resistant mutants and pointed out that resistant strains vary in their ability to produce disease.

Study of French Children

Dr. Robert Debré, director of the world-famous clinic for tuberculous children in the Hopital des Enfants Malades in the heart of Paris, reported on a study being conducted among 3,000 children in France on the use of drugs in preventing serious complications in tuberculous children. Dr. Debré gave a special lecture at the University of Colorado School of Medicine on infectious diseases of children in which he advocated the use of BCG in underprivileged areas.

At the conclusion of the symposium, Dr. Debré presented Dr. Middlebrook with a medal in the name of the International Children's Center of Paris in appreciation of his bringing the group together to discuss the problem of tuberculosis in children and of his contributions to the welfare of children through his research.

Other Participants

In addition to the French scientists, participants from Europe included Dr. Hans Jacob Ustvedt of Norway, who spoke of different types of reaction to BCG in children; Dr. Lars Strom of Sweden, who described experiments with a radioactive phosphorous in tracing the dissemination of BCG following vaccination; Dr. K. Neville Irvine of London, who discussed BCG and a vaccine made with the vole bacillus; Dr. Charles Lack of London, who spoke of tuberculosis of the bones and joints and told of cases which fared more satisfactorily when the affected bone was not immobilized; Dr. D. A. Mitchison, also of London, who discussed the action of drugs; Dr. C. Choremis of Athens, who told of the loss of allergy in many children treated with isoniazid, and Professor Cesare Cocchi of Florence, Italy, who reported the successful use of cortisone and ACTH in treating tuberculosis in children when adequate antimicrobial drugs were also given.

Participants from the United States included Dr. Walsh McDermott of Cornell University Medical School, director of medical research for the NTA, and several investigators receiving medical research grants from the NTA. They were Dr. Edith Lincoln of the children's chest service, Bellevue Hospital, New York City; Dr. Sidney Raffel of Stanford (Calif.) University Medical School, and Dr. Kornel L. Terplan of the University of Buffalo (N.Y.) Medical School.

Other participants were Dr. Jose E. Sifontes of Puerto Rico, who formerly worked with Dr. Lincoln under an NTA grant; Dr. Hattie E. Alexander of Babies Hospital, New York City; Dr. L. H. Schmidt of the Christ Hospital Institute of Medical Research, Cincinnati; Dr. Ralph Victor Platou, professor of pediatrics, Tulane University Medical School, New Orleans; Dr. Waldo E. Nelson, head of the department of pediatrics, Temple University School of Medicine, Philadelphia; Dr. Bela Schick, Austrian-born developer of the Schick diphtheria test, now living in New York City; Dr. Joseph A. Johnston, chief pediatrician at Henry Ford Hospital, Detroit; Dr. Sidney H. Dressler, medical director of National Jewish Hospital, and Dr. Carroll Palmer and Mrs. Shirley Ferebee of the Tuberculosis Program, U.S. Public Health Service.

Honorary Chairmen of the sessions included Dr. Esmond R. Long, retired director of medical research, NTA; Dr. Emanuel Friedman, Denver pediatrician; Dr. J. Arthur Myers of the University of Minnesota, and Dr. Albert Guggenheim, former assistant medical director, NJH. Dr. James J. Waring, University of Colorado School of Medicine and a Trudeau Medalist, presided at one session.

Radio and TV Data

As of November 1, 1955, there were 2,784 commercial radio stations, 446 commercial television stations serving 290 communities, and 17 educational television stations in the United States, according to "Broadcasting-Telecasting" magazine. There were 36 million black and white television sets and 26,942 color sets in American homes. Automobile radios numbered 30 million.

TB in Children

Routine Tuberculin Testing of Children Is Important Not Only for Their Protection But Also As a Lead in Finding Possible Open Cases Among Their Adult Contacts

by Edna M. Jones, M.D.

Dr. Jones, a graduate of the University of Kansas Medical School, is associate physician at the William H. Maybury Sanatorium, Northville, Mich., the Detroit municipal sanatorium, operated by the city's health department. Dr. Jones is a member of the American Trudeau Society, the Wayne County and Michigan State Medical Societies, and the American Medical Association.

A contribution from the ATS Committee on Public and Medical Relations, Dr. Jones's article is based on her experience at Maybury where she has been physician in charge of the children's division for more than 20 years. The children's division contains 100 beds, limited to children under 12. There are about 120 admissions a year; occupancy is about 95 per cent.

The current increased interest in tuberculosis in children is amply warranted because early detection and early adequate treatment provide children with maximum protection from the mortality and morbidity of tuberculosis, and because children are early clinical barometers of open, and possibly also drug resistant, tuberculosis in the home or community. When, during the second World War, England found it necessary to discharge adult tuberculosis patients to make room for war casualties, childhood deaths due to meningeal and miliary tuberculosis increased alarmingly within a year.

Approximately 50 per cent of the patients in the Children's Unit at Maybury Sanatorium, Northville, Mich., had diagnostic tuberculin test and X-ray because of symptoms rather than as tuberculous contacts or as part of a routine survey. Of these "pilot" cases 10 per cent developed tuberculosis by six months of age and over 75 per cent before they were five years of age.

Tuberculin Testing Important

Routine tuberculin testing should start in the well baby clinics, nurseries, and preschools. Evaluation of sick children should routinely include a tuberculin test. If the X-ray of a tuberculin converter shows a simple active primary lesion, we believe that isoniazid and PAS should be given for at least 9-12 months. In babies under one year of age who are found on survey to have only a positive tuberculin test the same treatment is warranted.

According to practice at Maybury, an older child without a previously known negative tuberculin reaction but with recent heavy exposure and a positive tuberculin should receive isoniazid-PAS as above. If such a child is ill, has equivocal X-ray findings, and a negative tuberculin, isoniazid - PAS should be started while further investigation of the tuberculin reaction, X-ray findings, and spinal fluid are being made. This child could be anergic to tuberculin and still be developing miliary lesions not clearly evident on the first X-ray. If miliary or meningeal disease is found on any of the frequent subsequent examinations, drug therapy should be changed to include streptomycin and the dosages increased as indicated for the initial treatment of these most critical forms of tuberculosis. On the other hand if the child improves and the tuberculin and X-ray remain negative, the isoniazid-PAS could be discontinued in four months.

Preventive Drug Therapy

In our experience, an apparently healthy infant having, on removal from heavy, recent tuberculosis contact, a negative tuberculin and roentgenogram should be given preventive isoniazid for four months unless the tuberculin test is to be repeated at semi-monthly intervals for the next two months. A baby whose disease is still in the incubation period when the first tuberculin test is done may develop miliary tuberculosis before the next routine, three-months checkup is due. It is noted too frequently in the histories of our in-sanatorium children that following this initial negative checkup, medical treatment for developing symptoms is sought in one or more other clinics or offices before returning for the next scheduled contact checkup.

For two months the family of these contact children with initial negative findings should keep a daily record of clinical symptoms and thermometer readings to submit when reporting for the semi-monthly tuberculin test. They should realize the importance of reporting any acute illness requiring symptomatic treatment in the two-week interval. Without this close teamwork it will be impossible to adequately treat all active tuberculosis in children as soon as the diagnosis is made. Emphasis should be on medical, supervisory, and home facilities for properly treating cases of early active tuberculous infection.

During the past three years the potent combinations of antituberculosis drugs have done a man-sized job in bringing practically terminal stages of tuberculosis under eventual control. Now we should not hesitate to use them in the earliest detectable infection when the job would be child's play in comparison and would be better for the individual and the community. With isoniazid combinations available for long uninterrupted therapy, it would seem tragic for even one known, but untreated, recent convertor to go on to a miserable and probably crippling tuberculous illness such as a lumbar spine or meningeal lesion.

Aside from the disseminated tuberculous lesions of children, it seems logical that adequate treatment with isoniazid in combination would effect more complete healing of a small fresh focus of infection than would be the case when the primary lesions had become older, larger, and more caseous. These older lesions may be brought under control with two or more years of treatment but there is usually residual distortion and bronchiectasis.

Besides trying to prevent disseminated lesions and the large, caseous,

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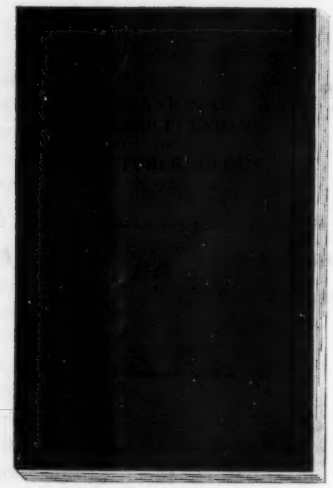
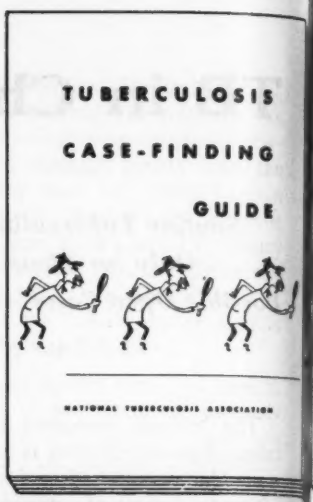
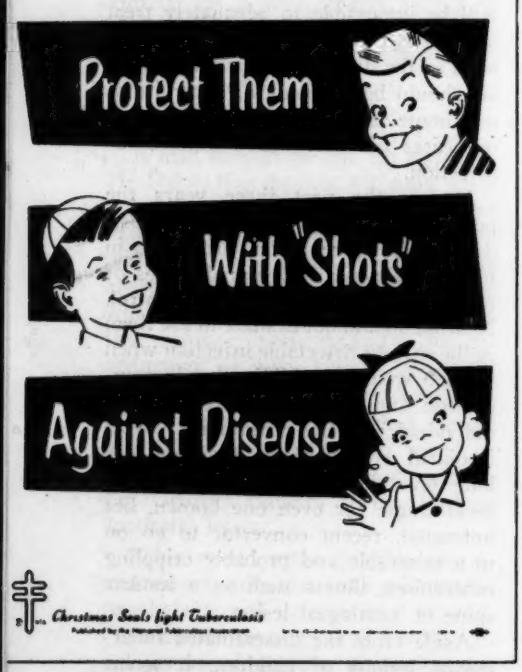
Current HEALTH EDUCATION MATERIALS produced by NTA



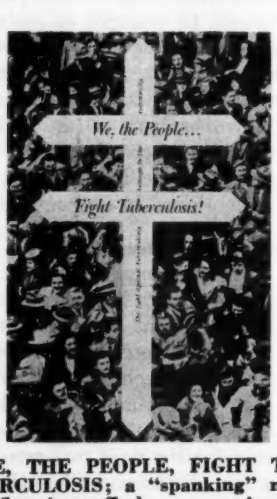
VOCATIONAL REHABILITATION OF THE TUBERCULOUS; a study of the post-discharge histories of a group of patients which had participated in a vocational rehabilitation program and one which had not. Incontrovertible proof of the all-around benefits of a sound rehabilitation program.



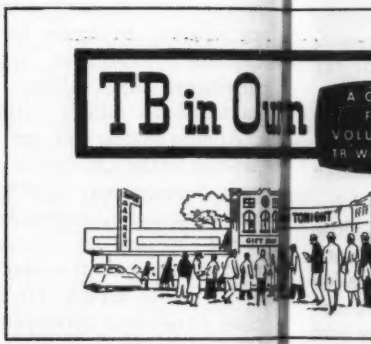
TUBERCULOSIS CASE-FIND HE CALO GUIDE; a detailed description o is Parke latest case-finding methods and eating a niques, how to organize a succe ons and program, and the criteria for eva res of H ing the results. A "must" item fo ghting th ery public health worker and tuber factual e sis association working to find the . For pa



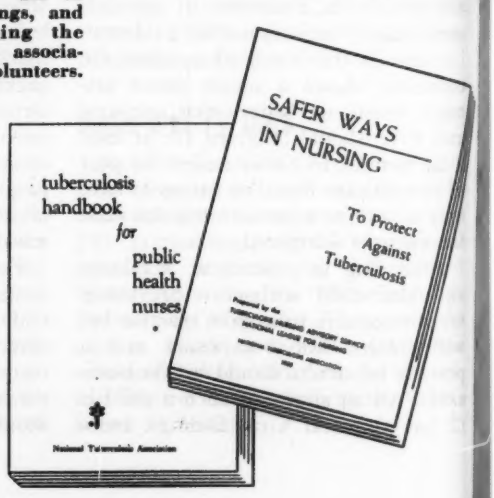
INDUSTRIAL HEALTH POSTERS AND LEAFLETS; a poster and leaflet every month on TB and other health topics. Posters are 8½x11", leaflets, 3x5". The sound, brief copy and colorful artwork lend themselves for use with general public, schools, and industry, for display in any public place and enclosure in pay envelopes.



WE, THE PEOPLE, FIGHT TUBERCULOSIS; a "spanking" new leaflet, just off the presses in the popular leaflet size. For use in the community, at meetings, and in the school, describing the work of the tuberculosis association, and the need for volunteers.

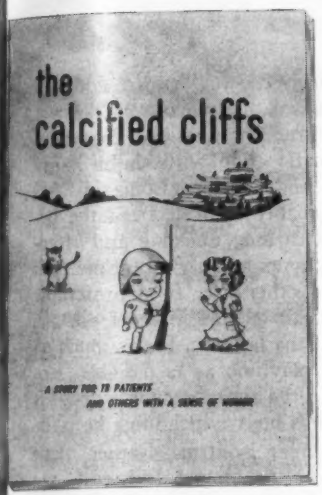


TB IN OUR TOWN; the sec ery popula For Volunteer Workers," th he series earlier, "THE INSIDE STO TB," left o read language, this eight-pa has proved workers in the formation ce which and educate the public ab questionna

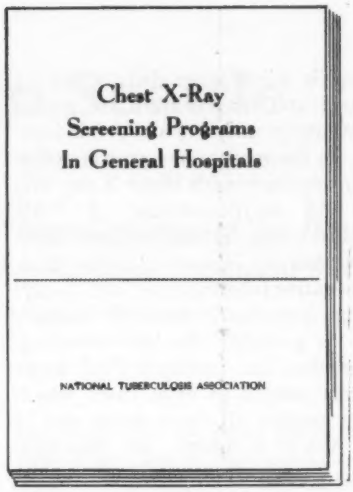


TUBERCULOSIS HANDBOOK FOR PUBLIC HEALTH NURSES; designed primarily to help public health nurses improve their services to patients in the homes and clinics. Also useful to nurses in hospitals, industry, schools, schools of nursing, and others involved in the program.

SAFER WAYS IN NURSING TO PROTECT AGAINST TUBERCULOSIS; a guide to the development of practices that will guard the health of those caring for a patient while he is in an infectious state. Useful to nursing services, schools of nursing, and hospital staff.

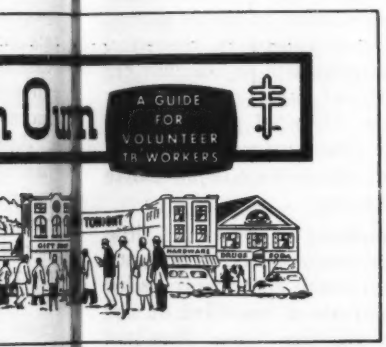


E-FIND HE CALCIFIED CLIFFS; the late iption o is Parker's whimsical account of ds and eating a tuberculosis patient. Car- a succe ons and captions relate the adven- for ev res of Homer Tishew and friends item fo hting the invader of Lungdom. nd tuber factual explanation also is includ- find the . For patients and their families.

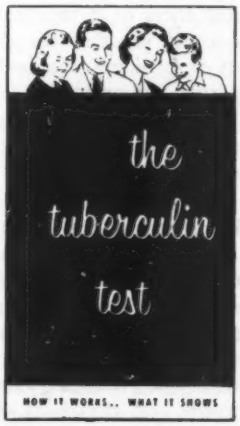


CHEST X-RAY SCREENING PROGRAMS IN GENERAL HOSPITALS; here are the facts and figures for hospitals and tuberculosis associations considering such programs or already having them in operation. Also contains important information for health officers and public health nurses.

A FAIR CHANCE; the dramatic story in motion pictures of one man's fight against the misconceptions and prejudice he meets trying to resume a normal life after being treated for TB. Available in black and white, sound, 16mm. Running time is 14 minutes, 25 seconds. Reaction shows this to be an extremely useful film with the general public, as well as with employee and management groups.



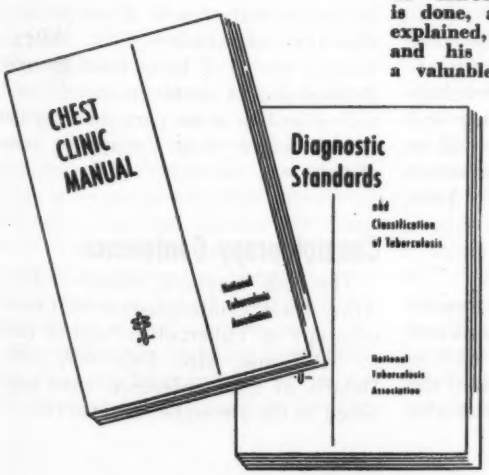
; the scenery popular and useful "Guides kers," th the series carries on where the DE STOP TB," left off. In simple, easy-to- eight-pa has proved useful to volunteer mation s ee which will work to inform ublic ab questionnaire is also included.



THE TUBERCULIN TEST; judging from the orders received since this leaflet was announced, it needs no introduction. How the test is done, and what it shows, are explained, the school student and his family learning about a valuable casefinding technique.

WITHOUT WARNING!
WHERE'S DADDY--WHY WASN'T HE COME HOME?
I--I DON'T KNOW, DEAR, IT'S LATE, YOU'D BETTER GET TO BED.
NO, DAD--AH ISN'T HERE... IT'S NOT LIKE HIM TO BE SO LATE! HE HASN'T BEEN HIMSELF THESE LAST FEW WEEKS AND I'M WORRIED--OH, THERE'S THE DOOR NOW...

WITHOUT WARNING; one family's experience with TB is told in this eight-page comic book in full color. Starting with the terror of discovery of TB, the reader learns how the patient is slowly brought to hope, and finally, confidence in his treatment and in himself. For general public, schools, patients and families.



CHEST CLINIC MANUAL; an up-to-date revision of a former successful manual by the same name. Sections on personnel, inter-agency relationships, physical arrangements, records, operation, supervision of cases and contacts, education, and participation in mass X-ray surveys.

DIAGNOSTIC STANDARDS; everyone knows this is the "bible" of diagnosis. A new and enlarged edition. Useful to physicians, medical school teachers, medical students, laboratory workers, rehabilitation workers, public health nurses, and others who deal with TB patients.

TB in Children

. . . *Continued from page 7*

excavating, primary lesions by treating the beginning primary infection, we also should check the course of the primary lesion which "lies low" while calcifying during childhood but which may assert itself in the future, requiring treatment of a geriatric patient and his grandchildren.

At least until all tuberculous lesions are treated early and adequately it is important to return the previously known tuberculous child for frequent X-ray followup as puberty is approached. In many colored females this close followup should start at 10 years.

Results At Maybury

Over the past three years at Maybury Sanatorium Children's Unit, long term treatment with isoniazid combined with streptomycin or PAS has reduced the mortality from 15 per cent to 0.25 per cent. It has also reduced the number and the severity of tuberculous complications. Opening of the Herman Kiefer Chemotherapy Clinic in Detroit has made possible the discharge of many cases for the continuation of long term therapy and, also, has made beds available for recently diagnosed patients.

Although in the first few months of treatment a certain percentage of the primary lesions will show X-ray worsening, with continued treatment there is much more complete healing in the succeeding months than occurred in similar cases without drug therapy. Even in those cases with X-ray worsening culture conversion was as prompt as in those whose X-rays showed continuous improvement. Among our in-sanatorium children the incidence of positive admission cultures was 40 per cent for all cases showing primary lesions and 16 per cent for cases showing only tracheobronchial lymphnode enlargement. Under treatment with isoniazid and PAS, however, it is rare to obtain a positive result when cultures are repeated seven to nine weeks later.

Isoniazid is indicated in every child with active tuberculosis except possibly those with the reinfection type. Even in the initial treatment of tuberculous meningitis when large daily doses of isoniazid and streptomycin are given, only 90 mg/pound/day of PAS is indicated. In the recent convertor and also in primary cases with slight X-ray evidence 45 mg/pound/day of PAS should be given, leaving isoniazid alone for the heavily exposed, healthy baby with negative tuberculin test and X-ray. In our experience isoniazid-streptomycin is probably the best two-drug combination but isoniazid-PAS gives excellent results in most cases which do not require all three drugs and is much less of a "chore" for the child.

Fewer sanatorium days will be required for children if tuberculous infections are specifically treated early. At the present time an additional factor influencing the length of sanatorium stay for some children is the lack of adequate facilities for continuing under home treatment. As is well known tuberculosis plays havoc with many homes, robbing them of a responsible mother who would see that the child took each dose of medicine; that he had adequate diet, rest, and protection from colds; and would take him regularly for X-rays and clinical observation as long as prescribed.

In order not to delay starting the long term therapy while the infection is small and fresh, it may be necessary to use a sanatorium bed for a child who otherwise could have been managed from the beginning on home treatment by a healthy mother. Well trained, regulated, and supervised boarding homes for such nursery and preschool children under drug therapy might be the answer for those no longer needing, or never having required, sanatorium treatment.

In addition to (1) an adequate home situation and (2) a clinic or private office for dispensing the antituberculosis drugs and periodically observing and X-raying the child, there must still be provisions for (3) home observation and prompt investigation of any lapse of treatment.

The Question of Rest

The amount of rest prescribed varies with the extent of the tuberculosis and the organ system involved as well as the symptoms and general health of the child. In the sanatorium, children who have primary tuberculosis are confined to bed most of the time during the first two or three months. At home an asymptomatic child with slight X-ray findings and under isoniazid-PAS would probably do well from the beginning with long morning and afternoon rest hours and early bedtime with quiet play otherwise. It is preferable to have them outside in the fresh air, but not in the hot sun, for as much of the quiet playtime as is possible. Regardless of the antituberculosis drugs it is the child's body which must keep infection under control. Rather than emphasizing prolonged bed rest, we must seek the optimum in general health by maintaining nitrogen balance, clearing up and preventing intercurrent infections, and avoiding fatigue.

The length of treatment varies with the age and extent of the tuberculous disease and also the rate of response to treatment, but roughly: four months for prevention, nine to twelve months for the recent tuberculin convertor. One to two years will be adequate for the majority of other manifestations except some advanced primary, bone and joint, genito-urinary and meningeal cases which may require three years of therapy.

With emphasis on prolonged drug therapy and maintenance of an optimum state of health, the school question comes up in about one-third of our sanatorium children when they are shifted to home treatment. At present there should be less reluctance to allowing these children to attend school with others. Our discharged cases and the recent tuberculin convertor cases on home treatment are safer as determined by the laboratory and X-ray findings than they were before 1952. After a variable period of home teaching most children should be able to attend "fresh air" school or even part time regular school before drug therapy is completed.

Chemotherapy Conference

The 15th Veterans Administration-Army-Navy Conference on the Chemotherapy of Tuberculosis will be held in St. Louis, Mo., Feb. 6-9, 1956. Details of the conference were published in the December BULLETIN.

Home Care in Seattle

In the Puget Sound Area, Where Post-Sanatorium Drug Treatment Is Highly Developed, Home Treatment Without Previous Hospitalization Is Vigorously Opposed

by Daniel W. Zahn, M.D.

Dr. Zahn is medical director, Firland Sanatorium, Seattle, Wash., clinical assistant professor of medicine, University of Washington School of Medicine, diplomate of the American Board of Internal Medicine, and a fellow of the American College of Physicians. He is president of the Western Tuberculosis Conference for the current year and president of the Pacific Northwest Trudeau Society. His article, the fourth in a series on home care treatment in various areas of the United States, is a contribution from the ATS Committee on Public and Medical Relations.

Any discussion of home care must be prefaced by a clear and sharp distinction between home treatment without prior hospitalization and that which follows a period of therapy in a tuberculosis hospital.

The latter type is practiced widely throughout the country and is accepted as not only safe and efficacious but also, in many instances, as highly desirable. Home treatment without previous hospitalization, on the other hand, is an extremely controversial issue, being loudly and tenaciously supported in certain areas and sharply and vigorously condemned in others.

Seattle Admission Procedure

Before exploring the subject in any depth, it would be profitable first to present a brief description of the procedure involved in the admission of patients to Firland Sanatorium, Seattle. In Seattle and King County patients with tuberculosis are referred to the Tuberculosis Control Officer, Dr. John H. Fountain, who is admitting officer for the sanatorium. In other counties such patients are referred to the hospital through the county health officer. It is important to note that there has not been a waiting list for beds in Seattle since 1948.

In the Seattle area it is estimated that over 95 per cent of patients with active pulmonary tuberculosis are hospitalized. The remainder are treated at home by competent chest physicians and only a minimal number are being cared for by physicians who are not qualified in the field of chest diseases. The average period of hospitalization currently is around seven months.

The philosophy dictating hospitalization of such a large number of our tuberculosis patients is based on the fact that new cases are being discovered at such a rate and in such numbers as to suggest that there are still important and substantial reservoirs of open tuberculosis in our community. If these reservoirs are to be reduced and eliminated, then isolation and treatment of every patient with a positive sputum becomes mandatory. There is only one ideal place for such isolation and therapy: the tuberculosis hospital. In a community such as Seattle, or indeed the entire state of Washington, where beds are readily available, it would be a serious and short-sighted error to compromise with the ideal and attempt to treat such patients at home.

To be sure, there may well be certain exceptions to this approach. For example, in the case of the elderly male, living alone with his wife and willing to be confined to his own home, his very life dependent upon the close support he receives from his elderly wife, any shattering of this close association may well lead to a miserable and pitiful existence for both parties. In such an instance it would be much more humane to treat the individual at home under the care of a competent chest physician, clinic or private, with close follow-up by the visiting nurse service.

Control Requires Isolation

It would be appropriate to emphasize at this point that, although our present anti-tuberculosis drugs are extremely powerful, and although our thoracic surgical skills are highly developed, the conquest and control of tuberculosis will elude us if cases of open tuberculosis are allowed to exist in our communities, allowed to disseminate and spread the disease, allowed to bring grief and destruction to unknowing people around them. In other words, control of tuberculosis implies not only identification of new cases by the various means now widely employed, but also removal of the source to a tuberculosis hospital for effective isolation and treatment.

While the above arguments carry a considerable amount of weight in the case of the patient with positive sputum, they are not nearly so convincing when applied to the patient whose disease is minimal and whose sputum is negative for tubercle bacilli. However, here the hospital offers other benefits.

Patient Education Important

Tuberculosis physicians have preached for years the doctrine that every patient should receive the advantages and benefits of orientation and indoctrination concerning his own disease in particular and tuberculosis in general. If we really believe this doctrine rather than merely giving lip service to it, it is obvious that even such patients should be hospitalized for treatment. The crucial question, then, is whether in the light of recent therapy advances such indoctrination, education, and orientation are really necessary.

I readily admit that thorough education of the patient concerning his own disease and a detailed exploration of his habits and customs are not essential to his immediate "cure." Surely, however, no one will deny that such efforts are highly desirable, particularly when the sights of tuberculosis therapy are aimed not only at the present situa-

tion, but are also focused on the next 5, 10, or 20 years. Admittedly our programs of patient education are often not as highly polished and effective as we would have them, but even the mere presence of the patient in a tuberculosis hospital produces, in many instances, a salutary effect upon a patient's way of life. As Wordsworth put it, "I am a part of all I have met."

Fundamentally speaking, any discussion of home treatment without prior hospitalization should first seek to determine whether such an approach is as therapeutically effective as treatment in a hospital. Experience with home treatment in New York City clinics indicates that sputum conversion to negativity is achieved in approximately 50 per cent of cases. Dr. Meyer R. Lichtenstein, medical director of the Chicago Municipal Tuberculosis Sanitarium, reporting on his findings in the Chicago area, also states that sputum conversion occurs in about 50 per cent of patients treated with drugs at home without prior hospitalization. Recent reports in the Scandinavian literature again cite 50 per cent as the number of patients undergoing sputum conversion on home treatment with antimicrobial drug therapy.

Better Results in Hospitals

The figure of 50 per cent appears to be rather constant, representing as it does the experience in such widely separated areas as Chicago, New York, and the Scandinavian countries. Let us examine the therapeutic results in a tuberculosis hospital. It is unanimously agreed that in a sanatorium sputum conversion is achieved in approximately 75 to 85 per cent of patients, with an over-all average of about 80 per cent throughout the country. Such a figure is much more impressive than the 50 per cent achieved on home treatment without prior hospitalization. In other words, a physician who recommends home treatment to a patient should be cognizant of the fact that he is recommending a form of therapy which is only 60 per cent as effective as treatment in a hospital!

Home treatment with drugs following discharge from the sanatorium is the rule for practically all our patients. Drug therapy in most instances is continued for a full two years. These cases are followed at the Seattle-King County Tuberculosis Clinic or Firland Out-Patient Department. A small number are under the supervision of private chest specialists. Social service and rehabilitation facilities are available to all outpatients. Attendance at these clinics is remarkably good and only a small minority discontinues drugs without medical advice. A recent check of patients discharged in 1953 indicates that over 90 per cent attended the tuberculosis clinic in Seattle or the Firland Out-Patient Department regularly.

It is obvious from the foregoing that while post-sanatorium drug treatment is highly developed in this region the doctrine of home treatment without previous hospitalization is vigorously opposed and has not as yet gained a foothold on the shores of Puget Sound.

TB Workers At AEA Conference

THE fifth annual Adult Education Association conference, St. Louis, Nov. 11-13, was attended by tuberculosis workers from state and local associations in Illinois, Indiana, and Missouri, from Chicago, and from the National Tuberculosis Association. In this group, photographed in front of the NTA exhibit at the conference, are, left to right: (seated) Mrs. Daisy Jacobs, St. Louis, Mrs. Clotilde P. Sanquinet, Indiana, Miss Genevieve Harkin, NTA, and Miss Ellen Boyce, St. Louis; (standing) Robert Roberge, St. Louis, Chester Kelly, Indiana, Donald Pratt, Missouri, Alfred Kessler, Marion County (Ind.), B. G. Crandall, St. Louis, and Walter Lalor, Missouri. The subject of the 1955 conference was "Adult Education's Role in Development of the Community."

TB, Geriatric Problem

The Trend Towards Older Patients in TB Hospitals, Reflecting Control Advances, Calls for Consideration Of Special Problems Concerning the Aged

by John B. O'Connor, M.D.

Dr. O'Connor is clinical director, Laurel Heights Sanatorium, Shelton, Conn., and assistant clinical professor of medicine, Yale University School of Medicine. He is a graduate of Harvard Medical School. Dr. O'Connor's article is a contribution from the American Trudeau Society's Committee on Public and Medical Relations, of which he is the current chairman.

Perhaps a better title for this article would be one emphasizing the trend towards older patients in our tuberculosis hospitals, rather than one implying that tuberculosis has become a geriatric problem.

A few reflections on this trend immediately raise many questions which for the most part are still unanswered. If, however, the current trend continues, and there is no reason to suspect that it will not, the care and treatment of pulmonary tuberculosis will truly require the services of those experienced not only in tuberculosis but also in the management of the elderly individual.

As recently as 15 years ago the majority of patients in the tuberculosis hospitals were active, alert young people and the principal problems encountered were in enforcing some degree of bed rest among such patients. At the present time, at least in Connecticut and to a large extent throughout the country, the majority of patients in tuberculosis hospitals are above the age of 40 years, with over one-fifth of the total admissions being above the age of 60 years.

There can be no denying that this change in patient age groups has resulted in a different, sometimes depressing, atmosphere in the hospitals. In addition, it has altered the whole medical routine of the hospital because of the increased incidence of non-tuberculous complications seen in these older age groups. Indeed, one might say that in many patients the tuberculosis is a complication secondary to a major non-tuberculous condition.

Not a Disease of the Aged

Does this mean that pulmonary tuberculosis has now become a disease of older people? By no means is this true. What can be said is that the excellent tuberculosis control work of the past and present has carefully screened the younger age groups and removed the potential source cases before the disease can be spread, thus reducing the actual number of new cases among the younger ages. A weakness of the control program has been the lack of cooperation of the older people, many retired or unemployed, and not accessible to industrial or group surveys. This obviously is now being corrected by orienting such case finding programs toward older age groups and by the routine chest films obtained on general hospital admissions. Indeed, in our experience the latter source is responsible for the discovery of the majority of patients with tuberculosis in the older age groups.

Connecticut Admissions

A brief review of all the tuberculosis hospital admissions in Connecticut during the year 1938 reveals that 52 per cent of the admissions were under age 30, 42 per cent between 30 and 59 years of age, and only *6 percent* were above 60 years of age. The older patients were predominantly males. By comparison, in 1953 only 23 per cent of the admissions were under age 30, 55 per cent were between 30 and 59 years of age, and *22 per cent* were above 60 years of age. In the 60 year and over group the males predominated 4½ to one.

In actual numbers there were 144 patients above 50 years of age admitted in 1938, contrasted with 534 in the same age group in 1953. The total admissions of all age groups increased 50 per cent between the two periods but the older group (above 50) increased about *370 per cent.* Although older men predominate on a percentage basis it is significant that more older women are also being admitted. Only 21 women above 50 years of age were admitted in 1938, whereas 90 such women were admitted in 1953. Corresponding actual figures for men were 123 in 1938 and 444 in 1953.

In the age groups above 60 years of age the increase in females has been twelvefold and in males about fivefold between 1938 and 1953; however, in actual numbers the males again are strongly predominant.

Certainly in Connecticut there is no question that the older age groups are a known reservoir of infection and make up a large part of our tuberculosis patient population. Where were these patients 15 years ago and what was the state of their health? Were they the infected cohorts with clinically inactive pulmonary disease of those who died of tuberculosis then? Did they succeed in escaping detection only to break down in later years?

Several years ago this was an accepted theory, but many of the current older patients have had normal chest X-rays during previous hospitalizations for other conditions, or have had previous survey films which were entirely normal upon review. They have actually acquired or developed their disease for the first time in the later years of their lives. The many years of routine chest X-ray surveying have made it possible to time the actual development of pulmonary tuberculosis in the older age groups. This one aspect of routine chest X-ray surveys, not to mention their value as a base line for other pulmonary conditions, such as carci-

noma of the lung, has been of exceeding value to the physician in clarifying the pathogenesis of pulmonary tuberculosis in the elderly patient.

Treatment Complications

The problem of treatment in these patients is made difficult by the frequent presence of decreased breathing reserve on the basis of emphysema, by complicating cardiovascular disease, and by inability of many such patients to make the adjustment to hospital life involved. Therefore it becomes imperative to discover and treat these patients while the disease is in its early stages, as has been done in the younger age groups.

Such methods as surveys of older age groups and routine chest films on all general hospital admissions have previously been mentioned. In addition, all diabetics should not only have chest films at the time they are first discovered, but should continue to have repeat films at least annually. Patients with chronic pulmonary complaints should not be dismissed with one normal chest X-ray. If symptoms persist repeat films are indicated. Chronic alcoholics should be watched carefully with frequent chest films since this group, comprised largely of social outcasts and homeless men, has an extremely high incidence of pulmonary tuberculosis. Routine surveys of nursing homes and old age homes will doubtlessly uncover patients with active disease in need of treatment. One must not succumb to the belief, prevalent some years ago, that age protects against active pulmonary tuberculosis. No age group, young or old, can be considered immune.

Age Doesn't Hinder Recovery

By and large, age itself is not a deterrent to recovery from pulmonary tuberculosis. Given an elderly patient with a minimum of degenerative changes there should be no more difficulty in treatment than in the younger patient. Such patients have undergone thoracic operations for resection of residual disease with a minimum of complications. Stability of disease has been achieved in some with prolonged medical treatment alone. Unfortunately, many of the older patients present themselves with extensive disease and are unable to tolerate any major operative procedures because of non-tuberculous complications, such as coronary artery disease. These are the patients who present problems.

With the proper use of antimicrobial therapy in tuberculous patients, along with other measures, the death rate from tuberculosis has declined dramatically in the younger age groups. In the older age groups stabilization of disease often occurs in those patients in which complete recovery cannot be obtained, only to have the patient die of cancer, cerebrovascular accidents, lymphoma or some other non-tuberculous condition. Occasionally efforts at treatment, although arresting the active tuberculous process, result in changes in the lungs which cause a greater work load for the heart and the patient dies in later years of heart-failure. Thus, although these patients have had active tuberculosis, their death rate from tuberculosis has dropped and their death can be attributed to other causes.

It has been estimated that by 1960, between 13 per cent and 15 per cent of the adult (over age 20) population of the United States will be 65 years of age or older. If these older people continue to be infected with the tubercle bacillus, as they are now, the problem of tuberculosis in this age group will persist and may become more acute.

Education Needed

The successful screening of younger people by past surveys should be the key to control of disease in the older age group. Admittedly, the problems are greater since these elderly people are hard to reach. Education of this group must be pressed vigorously so that they will participate in X-ray surveys. Recovery from the disease with the aid of modern treatment must be emphasized in order to eliminate the passive attitude assumed by many elderly people.

Similarly, these older folk must learn that if tuberculosis is detected early they stand an excellent chance of recovery. The best way of finding their disease early is by annual chest X-rays.

Perhaps if tuberculosis can be well controlled in this older age group another great step in eradication of the disease will have been taken.

Members of Annual Meeting Committees

The 1956 Annual Meeting of the National Tuberculosis Association will take place May 20-25 in New York City. The following persons are members of the NTA committees working to assure a successful meeting:

General Committee: Dr. H. McLeod Riggins (chairman), Dr. E. T. Blomquist, Dr. Katherine R. Boucot, Dr. George C. Owen, Miss Doris Roberts, R.N., R. Winfield Smith, Jules F. Schneider, and Mrs. Wallace B. White.

Subcommittee on Community Action Sessions: R. Winfield Smith (chairman), James H. Bates, Gerald D. Fry, Kenneth C. Ross, and Bryan Wilson.

Subcommittee on Medical Sessions: Dr. George C. Owen (chairman), Dr. Edward A. Gaensler, Dr. Daniel E. Jenkins, Dr. William M. Peck, William Steenken, Jr., and Dr. Edward J. Welch.

Subcommittee on Exhibits: Dr. Katherine R. Boucot (chairman), Thomas Darling, Dr. Leo Price, Dr. William Roper, and Dr. Norman J. Wilson.

Subcommittee on Local Arrangements: Mrs. Wallace B. White (chairman).

Subcommittee on Nursing Sessions: Miss Doris Roberts, R.N. (chairman), Miss Mary Jane Williams, Miss Marian Ellingwood, and Dr. C. Howard Marcy.

Radiophotography Congress

The second International Congress of Medical Radiophotography, which will deal with all medical, technical, and organizational aspects of radio-photography, will be held in Paris, April 4-7, 1956. The detailed program may be obtained from the Secretariat, 66 Boulevard Saint Michel, Paris, 6eme.

Dr. Marcley Dies

NTA founder and TB control pioneer had long career of service

Dr. Walter J. Marcley, a pioneer in tuberculosis control and a founder of the National Tuberculosis Association, died recently in Minneapolis at the age of 87.

From 1897 to 1907 Dr. Marcley was superintendent of the first state tuberculosis sanatorium in the United States, at Rutland, Mass. In 1907 he returned to Minnesota to become superintendent of that state's first tuberculosis sanatorium.

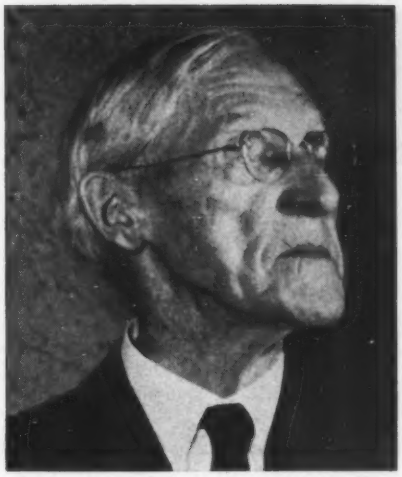
Although he entered private practice four years later, Dr. Marcley remained a tuberculosis consultant, and in subsequent years served as chief, tuberculosis service, Minneapolis General Hospital, medical director, Glen Lake Sanatorium and Thomas Tuberculosis Hospital, and chief, tuberculosis service, Veterans Hospital, Fort Snelling.

For 13 years Dr. Marcley was tuberculosis consultant to the Minnesota Department of Health. For 44 years he was an active and honorary member of the Hennepin County (Minn.) Tuberculosis Association, which he had served as president. He also held office in the Mississippi Valley Tuberculosis Conference and the Minnesota Trudeau Society.

With Dr. Marcley's passing only nine of the 195 founders of the NTA are now alive: Drs. Colin R. Clark, Frank A. Craig, Henry B. Dunham, Henry M. Hall, David R. Lyman, Daniel J. McCarthy, Charles H. Miner, Gustav Schmitt, and Josephus T. Ullom.

Nursing Fellowship Deadline

Deadline for applications for National League for Nursing fellowships is February 1, 1956. The fellowships, made possible through a Commonwealth Fund grant, are designed to aid outstanding nurses to prepare for administrative and faculty positions in nursing service and education. Information may be obtained from the NLN, 2 Park Avenue, New York 16.



Dr. Walter J. Marcley

NTA Bulletin Has World-Wide Circulation

The BULLETIN of the National Tuberculosis Association is received by approximately 1,600 subscribers in 88 foreign countries. Canada leads with 275 subscribers, followed by Brazil with 156 and India with 92.

There are also subscribers in Algeria, Angola, Argentina, Australia, Belgian Congo, Belgium, Bermuda, Bolivia, British Guiana, Burma, Canary Islands, Ceylon, Chile, communist China, Colombia, Costa Rica, Cuba, Curacao, Cyprus, Czechoslovakia, Denmark, Dominican Republic, Dutch Guiana, Ecuador, Egypt, El Salvador,

England, Ethiopia, Finland, Formosa, France, French Morocco, Germany, Greece, Guatemala, Holland, Hong Kong, Honduras, Hungary, Iceland, Indonesia, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Korea, Lebanon, Liberia, Macao, Malaya, Martinique, Mexico, New Zealand, Nicaragua, Nigeria, Norway, Pakistan, Panama,

Paraguay, Peru, Philippines, Poland, Portugal, Scotland, Singapore, Soviet Union, Spain, Spanish Morocco, Sudan, Sweden, Switzerland, Syria, Tanganyika, Tangier, Thailand, Tunisia, Turkey, Union of South Africa, Uruguay, Venezuela, Wales, and Yugoslavia.

Louisville Reports Jail X-ray Program Results

The Louisville Tuberculosis Association, whose prison X-ray program was reported in the BULLETIN for May, 1955, has reported the results of its six-month demonstration project in cooperation with the local health department and county jail.

A total of 2,226 prisoners were X-rayed, of whom 86.4 per cent were men and 13.6 per cent women, 64.4 per cent white and 35.6 per cent negro. Of 236 referred for large films, only 114 received final diagnoses because jail discharges made follow-up impossible.

Forty-two active cases of tuberculosis, of which 21 previously were unknown, were found; 10 were recommended for sanatorium care but only five were hospitalized. A number of other chest conditions were found.

In addition to X-rays all prisoners received tuberculosis literature and were shown weekly movies on tuberculosis. The project will be continued for another six months and then will be re-evaluated.

"New" Streptomycin Reported by Germans

A "new" streptomycin was reported by German scientists at the third annual symposium on antibiotics sponsored by the U.S. Food and Drug Administration in Washington recently.

The drug was said to eliminate side effects, such as dizziness and deafness, common to the parent drug. According to a United Press dispatch, the new drug, which has not been tried in this country, was developed at the Chemie Grenenthal firm in Stolberg, Germany.

When streptomycin came out 10 years ago it was used cautiously because of its known affect on equilibrium and hearing. A modification known as dihydrostreptomycin, developed to overcome these handicaps, overcame the equilibrium problem but added to danger of deafness.

The German version of streptomycin, according to press reports, is made with a pantothenic acid and is called streptomycin pantothenate.

Ex-Patient Study Shows Value of Rehabilitation

Evidence that vocational rehabilitation services do help discharged tuberculosis patients is presented by Sol Warren, Ph.D., in "Vocational Rehabilitation of the Tuberculous", published by the National Tuberculosis Association.

Dr. Warren's book is based on a five-year follow-up of 240 patients discharged from the Municipal Tuberculosis Sanatorium, Otisville, N.Y., of whom 79 requested and received services from the New York State Department of Vocational Rehabilitation and 161 did not request or receive such services.

After five years 73.4 per cent of the patients receiving services had not had a relapse of their disease, whereas in the other group only 38.5 per cent had had no relapse. Of the first group 85 per cent were gainfully employed and only 2.5 per cent depended on public assistance, compared with 47 per cent employed and 14.3 per cent on public assistance in the group not receiving rehabilitation services.

NLN Sponsors High School Nursing Clubs

In connection with its national information program, the Committee on Careers of the National League for Nursing has published a "Program Guide for Future Nurses Clubs" and has announced national sponsorship of "Future Nurses Clubs" in high schools.

The 80-page guide is designed to help high school groups learn about nursing and health services and prepare for possible nursing careers. The committee is sponsoring the approximately 1400 Future Nurses Clubs throughout the country in an effort to help them multiply and develop sound programs.

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Miss Marion H. Douglas, a member of the NTA board of directors, has resigned as executive director of the Visiting Nurses Association of Hartford, Conn., and has joined the Connecticut State Tuberculosis Commission as coordinator of nursing programs.

New officers of the Pacific Northwest Trudeau Society are: president, **Dr. Daniel W. Zahn;** president-elect, **Dr. Lawrence M. Lowell;** secretary-treasurer, **Dr. Thomas F. Sheehy, Jr.**

Dr. Francis J. Phillips, medical director and thoracic surgeon. Seward Sanatorium, Bartlett, Alaska, has been appointed a member of the Alaska Hospital Advisory Council by the governor of the territory. Dr. Phillips will represent the Alaska Territorial Medical Society on the council.

New officers of the Connecticut Trudeau Society are: president, **Dr. Nicholas D'Esopo;** vice-president, **Dr. William J. Lahey;** secretary-treasurer, **Dr. Reginald C. Edson.**

Edwin Moline, field consultant and public relations director for the North Carolina Tuberculosis Association since 1953, has resigned to become executive director of the Mecklenburg (N.C.) Tuberculosis and Health Association.

Mrs. Emma McLean, administrative assistant, Brooklyn Tuberculosis and Health Association, was honored recently for 35 years of service with the association. **Edward T. Fagan,** president of the NTA and treasurer of the Brooklyn association, congratulated Mrs. McLean on the occasion.

New officers of the District of Columbia Trudeau Society are: president, **Dr. Daniel Leo Finucane;** president-elect, **Dr. Otis R. Farley;** vice-president, **Dr. W. P. Montgomery;** secretary-treasurer, **Dr. Milton Gusack.**

Miss Marietta Rocquet, executive secretary of the Tuberculosis Association of Greater New Orleans for 22 years, has been awarded a gold double-barred cross lapel pin by the board of directors in appreciation of her services.

New officers of the Alabama Trudeau Society are: president, **Dr. Arthur J. Viehman;** vice-president, **Dr. Arthur A. Calix;** secretary-treasurer, **Dr. William J. Tally.**

New officers of the West Virginia Trudeau Society are: president, **Dr. Ralph H. Nestmann;** vice-president, **Dr. Haven M. Perkins;** secretary-treasurer, **Dr. Morris H. O'Dell.**

Charles Paquin, a former field representative with the Kentucky Tuberculosis Association, has been appointed executive secretary of the Bartholomew County (Ind.) Tuberculosis Association.

Gerald A. Rogovin, former public relations coordinator at New Haven (Conn.) State Teachers College, has been appointed assistant executive director of the New Haven Area Tuberculosis and Health Association.

New officers of the New Mexico Trudeau Society are: president, **Dr. Ashley Pond;** vice-president, **Dr. Rodger MacQuigg;** secretary-treasurer, **Dr. Bergere A. Kenney.**